



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101

FEB 02 1988

Ronald Hammerschmidt, Ph.D.
Manager, Bureau of Environmental Remediation
Kansas Department of Health and Environment
Building 740, Forbes Field
Topeka, Kansas 66620



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SUPERFUND RECORDS

Dear Dr. Hammerschmidt:

RE: Cherokee County Site

We are nearing the conclusion of the development of the feasibility study and selection of the preferred alternative for the ground water and surface water operable unit for the Galena subsite - Cherokee County site. The participation of the Kansas Department of Health and Environment (KDHE) throughout the development of this operable unit and the alternative water supply operable unit is appreciated and has been very beneficial to both KDHE and the Environmental Protection Agency (EPA).

Your staff has reviewed the draft feasibility study. CH2M Hill is currently incorporating all the comments into the final draft report. We plan to hold a public meeting on the preferred plan and the feasibility study on February 24 in Galena. The final draft report will be distributed at the public meeting or shortly afterwards.

As the result of the discussions between EPA and KDHE on the remedial alternatives, we have determined the EPA recommendation for the preferred alternative for the ground water and surface water operable unit is the following actions:

- 1) Surface mine wastes will be removed and milled to remove the metal sulfides. The metal sulfides will be sold to help defray a portion of the costs. The tailings remaining from the milling operations will be disposed of in one of the following ways to be determined later: a) left in impoundments for use by the National Guard shaft plugging operations, b) backfilled into the mine voids without addition material added to it, or c) left on the surface for use by property owners.

- 2) Surface drainage will be diverted around specific areas to prevent stream capture by mine shafts and subsidences. Owl Branch will be diverted around the Blue Hole using a concrete-lined channel. A portion of Owl Branch will be diverted to Tributary C to reduce surface water drainage in the lower Owl Branch mine areas. The Tributary A stream bed through Hell's Half Acre will be re-established with a lined channel to eliminate the present stream capture.
- 3) Recontouring of approximately 900 acres will be done to reduce infiltration and to help convey runoff from the area. Portions of these areas will be revegetated to prevent erosion.
- 4) Deep aquifer well remediation will be taken to protect the Roubidoux aquifer from contaminant migration from the shallow aquifer. Abandoned wells will be plugged. The integrity of currently used wells will be evaluated and the wells relined if necessary. We are assuming there are only seven (7) Roubidoux aquifer wells in the subsite.

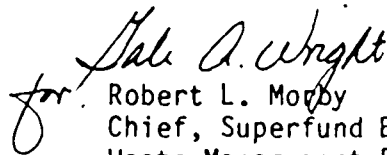
The projected costs for the preferred alternative are listed below. The cost are order of magnitude (+ 50 percent to - 30 percent) estimates.

Remove and Treat Surface Waste	\$ 2,155,000
Backfill (for disposal)	1,225,000
Divert Surface Water	1,172,000
Recontour	891,000
Remediate Deep Wells	126,000
Subtotal	<u>\$ 5,569,000</u>
Bid Contingency 15%	835,350
Scope Contingency 20%	1,113,800
Capital Cost Subtotal	<u>\$ 7,518,150</u>
Administrative 7%	526,271
Construction Management Services 7%	526,271
Engineering Design 8%	601,452
Total	<u>\$ 9,172,144</u>
Mill Resale	(140,000)
Value of Minerals	(2,500,000)
Net Total	<u>\$ 6,532,144</u>
Estimated Annual O&M	\$ 10,000

Since EPA has been working closely with KDHE throughout the OUFS process, we believe KDHE will be in agreement with this preferred alternative. To proceed with selection process, the Agency needs written confirmation of concurrence by KDHE on the preferred alternative. The EPA also needs certification that all the State ARARs have been addressed by this action. As you are aware, through the selection process, we will waive out of the contaminant-specific ARARs as those cannot be met by this action. The EPA would like to receive the confirmation/certification letter from the Secretary of KDHE by February 12.

If you have any questions, please contact me or Alice Fuerst at 913/236-2856.

Sincerely yours,


for Robert L. Morby
Chief, Superfund Branch
Waste Management Division

cc: Larry Knoche, KDHE
Karl Mueldener, KDHE
Larry Hess, KDHE